

**METHOD FOR USING DRAIN COUPLING TO SUPPRESS THE SECOND BIT  
EFFECT OF LOCALIZED SPLIT FLOATING GATE DEVICES**

**ABSTRACT OF THE DISCLOSURE**

The present invention provides a method for using drain coupling to suppress the second bit effect of localized split floating gate devices. By suitably designing the gate and drain overlap region, the drain coupling coefficient can be controlled to effectively suppress the second bit effect during a reverse read operation. The modified reverse read method such as the “raised source voltage  $V_S$ ” method can also be employed to further improve the drain coupling effect without read disturb. Furthermore, the drain coupling can improve the channel hot electron (CHE) injection efficiency.